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PRIVATE SECTOR INITIATIVE TO EXPAND CHILD SURVIVAL SERVICES
FOR TEA AND COFFEE ESTATE WORKERS AND THEIR FAMILIES
IN THE **THYOLO** DISTRICT OF MALAWI

MID-TERM EVALUATION

Submitted to:

Agency for International Development
FHA/PVC/CSH
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Submitted by:

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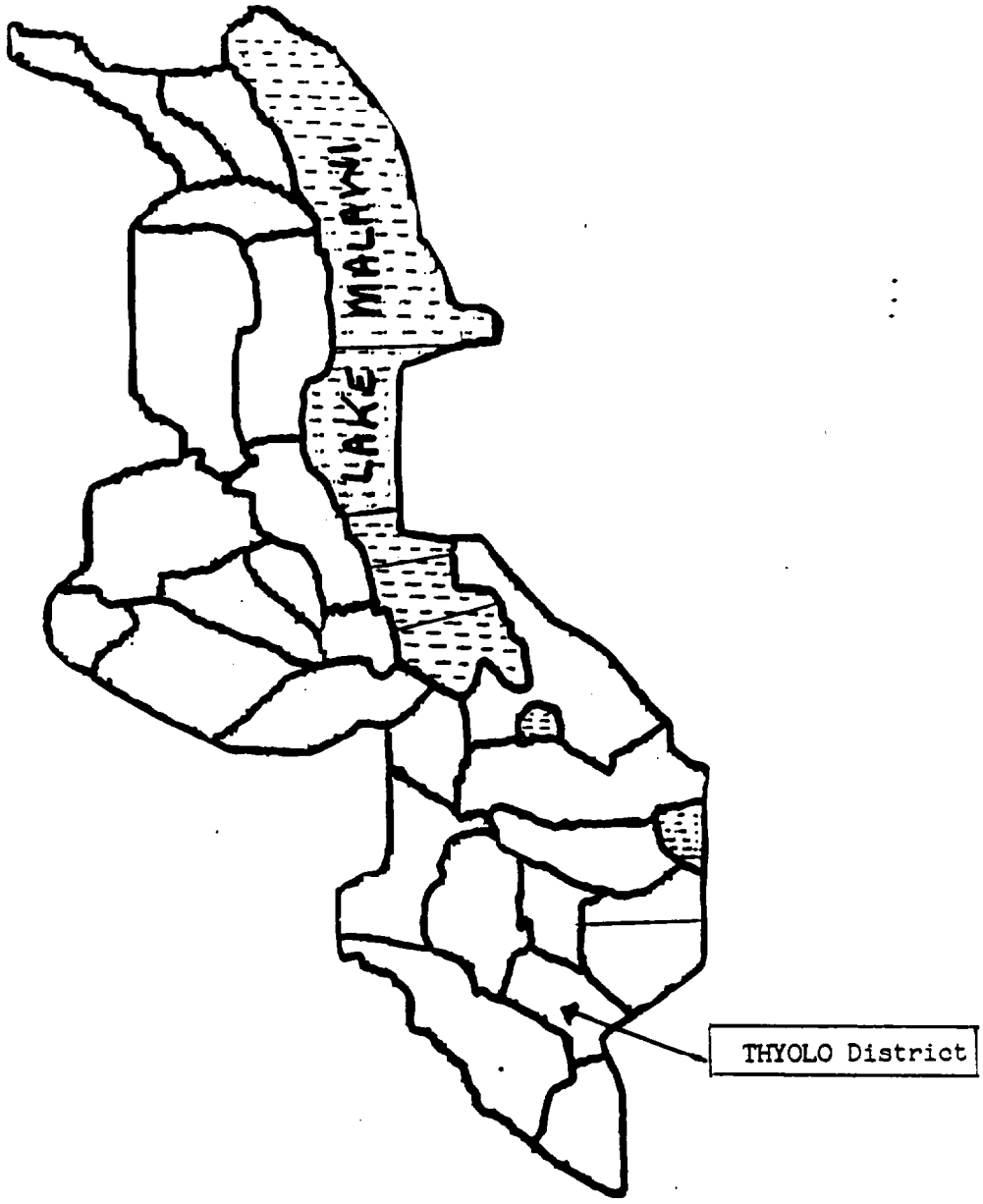
MAP OF MALAWI

DISTRICTS OF MALAWI



ACRONYMS

AEA	Agricultural Employers Association
A.I.D.	Agency for International Development
AIDS	Acquired Immune Deticiency Syndrome
ALRI	Acute Lower Respiratory Infections
ARI	Acute Respiratory Infections
CBD	Community Based Distribution
CDD	Control of Diarrheal Diseases
CDIE	Center for Development Information and Evaluation (within A. I.D.)
CPR	Contraceptive Prevalence Rate
DIP	Detailed Implementation Plan
DHS	Demographic Health Survey
EPI	Expanded Program on Immunization
FP	Family Planning
GOM	Government of Malawi
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
IEC	Information, Education, and Communication
KPC	Knowledge, Practices, and Coverage
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non-Governmental Organization (see also PVO)
ORS	Oral Rehydration Solution
ORT	Oral Rehydratioa Therapy
PACD	Project Assistance Completion Date
PC	Personal computer
PCV	Peace corps Volunteer
PHC	Primary Health Care
pm	Person-Months
PVO	private Voluntary Organization (see also NGO)
STD	Sexually Transmitted Disease
TA	Technical Assistance
ToT	Training of Trainers
USAID	United States Agency for International Development

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BACKGROUND

Project HOPE, a non-profit private voluntary organization (PVO) based in the United States, implements the Thyolo Child Survival project in southern Malawi with financial support from A. I. D./Washington. The Thy010 Project is a result of several initiatives made by HOPE since 1988 when the HOPE Regional Director (based in Swaziland) made a series of visits to Malawi to investigate the possibility of providing health support to a particularly needy population. After several trips, HOPE proposed to establish child survival services on the private sector tea and coffee estates of Thyolo district[1]. A proposal was submitted to A.I. D./Washington for funding, but was rejected because A.I.D. was unconvinced that the unusual linkage between a PVO and the private sector would be successful or sustainable.

T'he following year, in 1989, HOPE persisted with a more detailed second proposal, and A.I.D. subsequently agreed to provide a preliminary one-year planning grant (totalling $100,000 matched by HOPE's $33,333 contribution) for general start-up and for designing a more detailed project plan. The $133,333 budget, sufficient to begin establishing child survival services on eight estates in the district, financed the following activities:

- the salary of a full-time expatriate project director and two local staff;
- a baseline household survey;
- pre-service training of seven health surveillance assistants (HSAs -- Malawi's lowest paid health workers and front-line PHC workers) and 70 community health volunteers; and
- vehicles and office equipment.

Within six months of implementation, HOPE succeeded in interesting thirty more estates in expanding their health services to include child survival services. The baseline survey conducted during this six-month period measured the extent of health knowledge, practices, and health services coverage on the estates. Using the baseline survey data and the endorsements of the estates, HOPE submitted a third proposal to A.I.D. to train and place thirty health surveillance assistants (HSAs) within the estate health care system in order to promote and deliver basic maternal and child health care services. The goal of the project was to "lower morbidity and mortality among women of child-bearing ages aud their children under five through collaboration with private sector estates committed to expanding child survival services for their workers and their families" (2). Based on this third submission, A.I.D. agreed to provide $600,000 (matched by HOPE's $200,000 contribution and the in-kind contributions of the estates) over the three year period August 1991 - July 19% for establishing comprehensive primary health care (PHC) services ou 38 estates in Thy010 district.

At the time of this evaluation, the project had been operational for two years, with twelve remaining months until the Project Assistance Completion Date (PACD). This report aims to document the accomplishments and achievements of the HOPE/Malawi Child Survival Project

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[1] Thy010 District is located in southern Malawi, with a total population of 457,000 persons in 350 villages and estate compounds. Approximately 165,000 individuals are associated eitber directly or indirectly with the tea and coffee estates. An estimated one-third of all health facilities in Tbyolo district are privately owned and operated by the tea and coffee estates for employees and their dependents.

in achieving these objectives thus far, as well as to recommend areas of improvements or further attention. The organization of the following discussion follows the outline and questions set forth in the " 1993 FHA/PVC Child Survival Mid-Term Evaluation Guidelines" developed in A.I.D./Washington.

The evaluation team was comprised of two HOPE/Malawi representatives (C. Thompson and G. Sande), one HOPE/US representative (Dr. B. Schwethelm), and an external evaluator (M.P. Selvaggio). The team conducted in-countxy interviews during the weeks of 7- 17 July 1993 in addition to reviewing project reports and documents for the completion of this report.

1. ACCOMPLISHMENTS

The Project Hope/Malawi Child Survival Project has been operating for nearly two years since August 1991, during which time considerable effort has been directed toward:

- providing pre-service training to 320 primary health care workers (known in Malawi as Health Surveillance Assistants, HSAs) and community health volunteers for placement on 38 tea/coffee estates;
- conducting numerous household and health worker surveys;
- coordinating with estate managers, the Ministry of Health (MOH), donors, and other NGOs; and
- establishing supervision and information systems for the child survival interventions introduced on the estates.

Table 1 contains a summary of all inputs and outputs of the project at the time of this evaluation. Extrapolating from the results of the mid-term survey, an estimated sixty to eighty percent of all women and children targeted (45,500) are now direct beneficiaries of project activities.

At the time of the evaluation, it was not possible to measure the health impact or outcome of these inputs and outputs as it is too early to measure changes in morbidity or mortality patterns resulting from the introduction of child survival programs on the estates. Nevertheless, the project's mid-term survey notes increases in household knowledge related to ORT, appropriate infant feeding practices, malaria symptoms and prevention, and AIDS transmission. Furthermore, anecdotal information suggests substantial improvements in compound sanitation along with earlier referrals to estate clinics for basic health problems. These increases in knowledge, improvements in environmental health, and greater utilization of estate health services are expected to have a positive impact on overall child survival in the long-term.

Numerous improvements in the estate health sector can be directly attributed to project efforts -- mostly in strengthened health infrastructure, improved health behaviors at the household level, and productive and collaborative working relationships with numerous counterparts. These are further discussed below.

1.1 Strengthened PHC Service Delivery

The most significant project accomplishment is the creation of community-based PHC service delivery on the Thy010 tea/coffee estates where little or no PHC services previously existed. Through establishing a network of well trained, community-oriented he&h personnel (HSAs and community volunteers who were non-existent prior to the project), Project HOPE has significantly expanded preventive, primary he&h care services to estate residents and their families. A total 320 additional staff (280 volunteers, 30 HSAs, and 10 CBD workers) now assist in promoting health and delivering MCH health services/supplies to 38 estates. Furthermore, given that the HSA aud CBD workers are fully employed by their respective

Table 1
Project HOPE/Malawi Child Survival Project: Mid-Term Evaluation
MEASURABLE INPUTS. OUTPUTS. AND OUTCOMES

INPUTS** (estimated total cost: $422,400)	OUTPUTS	OUTCOMES
TECHNICAL ASSISTANCE (24 pm long-ten and 1.5 pm short-ten) LOCAL STAFF (57 pm Technical Support: 66 pm bdrinistrative Support; 31 pm Peace Corps Volunteers) TRAINING (45 pm for thirty HSAs ahd 46 pm for couunity health volunteers) REHABILITATION OF HEALTH F FACILITIES (Project off ice at Distr ict Hospital) SURVEYS/RESEARCH (1 baseline and 1 mid-ten KPC survey; 1 diarrhea survey: 1 end-of-training survey: 1 ethnographic survey: one nutrition review; and 26 ahthropcmetric surveys***) COMMODITIES 2 Vehicles, 3 motorcycles, and 30 bicycles (for HSAs) Office Furniture (desks/&airs for 8 persons; photocopier; typewriter; 2 filing cabinets; fax/phone machines; transcriber; generator) Computer equipment (3 PCs and 2 printers) Audio Visual equipment (VCR, slide projector, screen, 2 cassette players) Teaching Aids (2 obstetric mannequins)	325 persons trained in basic PHC services delivery. Strong couituent by 38 estates to expandinq existing health services to include child survival services. Better data base on health knowledge and practices among estate workers and their families. Development of information system for monitoring (i) performance of health surveillance assistants (HSAs); and (ii) utilization of health facilities. Early signs of increasingly beneficial health behaviors at home environment. Earlier referral to health facilities for most common health problems. Improved sanitation on compounds.	Among mothers with young children, increased knowledge related to Malaria (symptoms and treatment), AIDS (transmission and prevention), ORT, and child feeding practices. Increased contraceptive prevalence (from 4 percent at baseline to 19 percent at mid-ten). Changes in morbidity and mortality not yet possible to measure.

Inputs refer only to the resources prov ad by A.I.D. ahd Project HOPE iand do not reflect the estate contribution to the project (mainly salaries *for* HSAs).
+** Costs for two anthropometric surveys were covered by the project. Project technical abd administrative support was provided to another 24 drought-related surveys (in collaboration with other NGOs and donors).

estates, sustainability is more likely than in most PVO community health projects where community or MOH financing is more difficult to secure.

The project has also made a unique contribution to the Malawian health sector in the development of a management-based, user-friendly health information system (HIS) for monitoring the work of the HSAs and community volunteers and for program-related decision making. Because the HOPE computerized HIS is more user-friendly and accessible than the GOM's manual HSA information system, it has the potential for being adapted for use by other organizations employing HSAs (including the MOH).

Finally, the project has established strong management structures, particularly for health worker supervision and supplies management. Strong Project HOPE oversight of HSAs and health volunteers has ensured that their training is being put to effective use at the community level as intended. Support for logistics management (mostly transporting bulk supplies of condoms from Lilongwe to health workers on the estates) appears to have resulted in increased utilization/acceptance of condoms either for AIDS prevention or family planning (from a baseline condom prevalence rate of 1.3 percent to 3 percent at mid-term).

1.2 Improved Community Health Practices/Knowledge

Most impressive to estate manager, the HSAs themselves, and HOPE staff has been the greatly improved cleanliness on the estate compounds resulting from project efforts. Throughout the evaluation, it was repeatedly emphasized that social mobilization at the compound level has stimulated cleaner compound homes, better sanitation, and a greater community spirit among compound residents -- characteristics of compound life not evident prior to the start of the project. With improved compound sanitation, estate managers are now exhibiting new commitment to upgrading worker housing by financing construction of more pit latrines and water supplies on their estates. Additional evidence of the project's successful social mobilization is the increasing attendance at community health education talks and at under-live clinics over the life-of-the-project. For example, no health talks were given to estate workers prior to the start of the project. During the first year of project implementation, an average 3378 persons attended health talks each month. By year 2, an average 5,539 persons attended health talks each month.

The project has also contributed to improved health knowledge and practices among estate residents. Based on the results of the mid-term survey, many of the project's KPC objectives have already been achieved after only two years of implementation. This is particularly evident in the communities' knowledge of diarrhea, family planning, malaria, and transmission of HIV/AIDS.

Finally, as a result of HSA/volunteer referrals of sick patients, as well as their success in educating the population on symptoms of diseases, there are now reportedly less severe cases being presented at estate health facilities. And estate residents are reportedly asking more for condoms since they now know that condom supplies are available (as a result of HOPE logistical support).

1.3 Enhanced Coordination/Collaboration:

Good working relationships between a PVO, the recipient community, the financing agency and the MOH are critical for successful and sustainable MCH programs. In this case, Project HOPE is credited with contributing to very constructive, positive, and collaborative working relationships with all parties.

In Malawi, the estate sector is typically reluctant to collaborate on social services projects because of past negative experiences with promoters of these activities. Initially skeptical toward this project, estate managers are now highly committed to the delivery of PHC services on their estates. Several companies, impressed with the success of the project's start-up, have indicated that they would increase their company health budgets (by as much as 10 to 15 percent) to cover future recurrent costs for sustaining the program on their estates.

HOPE has also developed highly collaborative working relationships with the Ministry of Health (MOH) not normally found among NGOs working in Africa. HOPE has ensured that all technical interventions introduced on the estates followed GOM/MOH norms and protocols. The content of the health messages delivered by the HSAs and community he&h workers are those developed by the MOH in conjunction with UNICEF. Productive working relationships with Project HOPE staff were highlighted by district and regional MOH as well as other NGOs.

A prolonged drought which occurred during the first two years of the project (199 1- 1992) throughout southern Africa thrust the HOPE project into an emergency response mode, necessitating responsiveness to community relief activities. HOPE participated in donor coordination meetings with the MOH and other NGOs and supported numerous nutrition surveys which were conducted throughout southern Malawi. Although the drought has passed, these donor coordination activities continue today with a focus on development and coordination of scarce development resources to maximize impact at the community level.

HOPE has also established positive working relationships with the USAID/Malawi mission as evidenced by their frequent contact and regular exchange of ideas.

2. RELEVANCE TO CHILD SURVIVAL PROBLEMS

"Relevance" refers to the appropriateness of interventions given the needs of the beneficiary population. A.I.D./CDIE states that to be relevant in health terms, a program or project should allocate its resources in proportion to the seriousness of the varied health problems affecting the population.

In Malawi, the leading causes of morbidity and mortality are malaria, respiratory infections, undernutrition, AIDS, d&heal diseases, and anemia (1). In Thyolo, these are also the main causes of sickness and death (6). The Government states that although malaria is the first cause of illness and death (particularly among the 0-5 year age group), half of ail Malawians are

unaware of the causes of the disease and the correct treatment. As a result, there is urgent need for more education and communication on malaria. (This pervasive lack of knowledge was also confirmed in the results of the project's baseline survey.) HIV/AIDS also now contributes significantly to overall morbidity and mortality in Malawi. HIV prevalence ranges around 20 - 28 percent for the general population, and while rates for children are unknown, increases in the adult female population clearly place infants and breastfed children at risk as a result of fetal and breastmilk transmission.

For all health problems, women and children are the most vulnerable groups in the country. Physical accessibility to health services is not a constraint in Malawi or on the estates, as most Malawians live within 8km of a health facility. Most of these services, however, lack effective outreach into their communities.

HOPE's presented its proposed technical approach to address these constraints in both the Project Proposal (2) and the Detailed Implementation Plan (DIP)(3). The project is designed to address: (i) the poor knowledge and unfavorable practices among mothers and child caretakers on the Thy010 estates; and (ii) the absence of preventive PHC services delivery within the estate sector. The project essentially aims to educate women and other child caretakers on child survival, well as to strengthen delivery of PHC services at the clinic and community level (through establishing community health workers (HSAs) and volunteers at the compound level). This approach is highly relevant to the health profile of the target communities and the health services delivery structure within the estate.

Table 2 below presents the planned allocation of A.I.D. contributions (as planned in the project DIP) compared to the actual allocation to date and the targeted allocation by the end of the project. The difference between planned and actual/targeted allocation of project resources is due to the following factors:

- at the beginning of the project, immunization coverage in Thy010 was already very high (approximately 80 percent complete coverage) and EPI interventions were therefore not given as high a priority in the project as other more critical health concerns;
- poor sanitation at household level was identified as the strongest underlying factor for poor child health, therefore requiring greater attention;
- the prolonged 1991-92 drought demanded that project resources focus more intensively on nutrition and water-related health interventions during the early months of project implementation; and
- malaria and HIV/AIDS, as the most common causes of morbidity and mortality, necessitated additional emphasis.

"Relevance" also refers to the appropriateness of the strategies employed to improve health status. HOPE's baseline survey found among mothers and caretakers a lack of appropriate knowledge related to child health. Thus, the project's strong IEC orientation through the use of community health workers (HSAs and volunteers) for educating families is relevant given the educational and cultural context of the estates. Likewise, the project's strategy to establish outreach-oriented PHC services from the estates pre-existing health facilities expands the

Table 2
Project HOPE Child Survival Project in Thy010
Mid-Term Evaluation
PLANNED, ACTUAL, AND TARGETED ALLOCATION OF A.I.D. RESOURCES

INTERVENTION	PLANNED use of A.I.D. funds (percent) June 1992 (DIP)	ACTUAL use (by mid-term) of A.I.D. funds (percent) Julv 1993	REVISED TARGETED use of A.I.D. funds by PACD (percent) July 1994
A. ORT	20 %	20 %	20%
B. Iuunization	20 %	4 %	5%
C. Nutrition (sum of 1.2.3 below)	20 %	20 %	20 %
1. Breastfeeding	(10 %)	(10 %)	110 %)
2. Weaning process	(5 %)	(5 %)	(5 %)
3. Maternal Nutrition	(5 %)	(5 %)	(5 %)
D. ALRI	5 %	7 %	5 %
I?. Paaily Planning/Maternal Care	15 %	15 %	15 %
P. Other (sum of 1,2,3 below)	20 %	34 %	35 %
1. Malaria	(N/A)	(7 %)	(10 %)
2. HIV/AIDS	(N/A)	(15 %)	(15 %)
3. Vitamin A	(N/A)	(2 %)	(5 %I
4. Water/Sanitation IEC		(10 %)	15 %)
TOTAL	100 %	100 %	100 %

availability of services to the target population.

Finally, the HOPE project is designed to be consonant with the financial realities on the estates, and their financial and human resources available for sustaining the services following the PACD. Community health personnel were hired only when the estates could pay for their salaries. Simple and affordable systems and structures were introduced which could be easily sustained by the estates following the end of the project.

In summary, the project's health interventions and strategies are highly relevant with the epidemiological profile of the Thy010 estates, but a shift in resource allocation was required to

ensure more relevant and rational allocation of project resources given the epidemiological and socio-cultural profile of the Thy010 estate sector. The evaluation-team supports this shift and the greater spending and emphasis given to malaria, nutrition, HIV/AIDS, and water/sanitation. Although EPI receives less attention with the shifts in resource allocation, EPI coverage levels are not expected to be affected since the levels seen prior to the start of the project have been maintained throughout project implementation without much emphasis by the HOPE project.

3. EFFECTIVENESS

"Effectiveness" refers to the extent to which services are reaching the inr ded beneficiaries. Effectiveness has two dimensions -- *coverage* of services (a quantitative asure of project performance) and *quality* of services (how well the services meet the needs of the beneficiaries).

3.1 Coverage

The Project HOPE Detailed Implementation Plan (DIP) presents twelve objectives to be reached by the end of the project, largely relating to increasing knowledge levels and increasing both accessibility and utilization of PHC services. Many of the project's objectives have already been reached as evidenced by the results of the mid-term survey -- a remarkable accomplishment in view of the additional demands placed on the project as a result of the drought. Annex D graphically summarize progress toward meeting the twelve project objectives.

Increased maternal knowledge of ORT, malaria, and HIV/AIDS since the baseline survey are attributed to the intensive IEC efforts of HSAs and community health volunteers. On the other hand, knowledge/practices related to nutrition, child feeding, breastfeeding, and ARI have not improved as much, and will require additional attention during the next year of project implementation to reach project targets. Due to the many KPC objectives which have already been achieved, it is recommended that project objectives be revised to set new targets (where targets are already met) and that extra emphasis be given to nutrition and ARI education during the next year.

Of particular note, contraceptive prevalence rates (CPR) have nearly quintupled (see Table 3). Data show that CPR for estate populations at the begin&g of the project was similar the CPR rates of the rest of the country as measured by Demographic Health Survey. Nearly two years later, however, significant increases in family planning use are evident, mostly in use of condoms, pills, and injectables. HOPE should be given credit for the large increase in condom use, as their condom promotion efforts (for AIDS prevention and family planning) as well as their logistical support efforts (keeping HSAs and health facilities well supplied) have clearly

Table 3
Project HOPE Child Survival Project; Mid-Term Evaluation
FAMILY PLANNING DATA

Modem Method Used	Baseline CPR (1991) N = 298	DHS Data (1993)	Mid-term CPR (1993) N = 287
Condom	(6) 1.3 %	1.6 %	(10) 3.4 %
Injectable	(2) 0.6 %	1.5 %	(7) 2.4 %
IUD	(1) 0.3 %	1.5 %	(1) 0.3 %
Oral Contraceptives	(6) 2.0 %	2.2 %	(33) 11.5 %
Sterilization	N/A	1.7 %	(5) 1.7 %
TOTAL	(15) 4.2 %	7.0 %	(56) 19.5 %

resulted in greater acceptance of condom?. Increases in CPRs for pills and injectable can only be partially attributed to HOPE's efforts, as project emphasis was on promotion and not strengthening service delivery.

Because coverage ***per se is*** not listed as a distinct project objective (although it is presented as a project goal or purpose) no data on coverage of health services delivery was included in the baseline or mid-term surveys. Nevertheless, the project has clearly made a significant contribution to expanded child survival services on the estates by increasing the numbers of tied health workers available to the communities (HSAs and community volunteers) and by educating the general public in the appropriate use of modern health care services. Anecdotal reports indicate that prior to the project, compound residents were reluctant to use estate health services unless an illness had progressed to a very severe state (at which point the estate clinic usually had to refer the patient to the district hospital). Now, as a result of project inputs, utilization of estate clinics is reportedly increasing, and many of the clients are coming in earlier

[2] HOPE has assisted in the distribution of 159,200 condoms in the eight month Period October 1992 through June 1993. Commodity distribution data can be used as a cross check to the results of the mid-term survey to verify the increase in condos CPR rates. Using comcdity data, the condos CPR is calculated at approximately 4 percent. Assuming that a Portion of this four Percent is used to build stocks, distribution data suggests that the condom CPR is around 3 Percent. The aid-ten survey found a reported condom CPR of 3.4 percent. Thus, the reported use of condors as a contraceptive method is highly associated with HOPE's commodity distribution data, concluding that Project HOPE has been primarily effective in increasing condom usage in Thy010 district.

with less severe symptoms. It could therefore be concluded that project activities have been quite effective in increasing the overall availability and accessibility of health services to the population and in the long-term, may reduce the costs for hospitalization.

3 . 2 Quality

To measure the quality of HOPE project efforts (i.e. how well the project is meeting the needs of its beneficiaries), the needs of both estate managers and estate workers must be considered.

Estate managers are clearly concerned about the spread of malaria and HIV/AIDS which most affect their workforce. The project appears to be effectively meeting the expectations. of this beneficiary group through the increased attention being given to these two diseases. As indicated above, increased knowledge of both diseases is evident and should contribute to increased practice of preventive behaviors. Furthermore, HOPE's emphasis on condom distribution (and future plans to promote impregnated bednets) will even further satisfy the concerns of estate management.

On the other hand, it is not possible to judge how well the project is meeting the priorities of estate workers in the absence of qualitative data which presents their desires or aspirations. As with most health projects, the HOPE interventions were designed based on an analysis of epidemiological patterns and services infrastructure. Yet, the results of an ethnographic survey financed by HOPE (7) show that the greatest concern of most estate women is not disease control, but rather scarcity of food leading to malnutrition, and in some cases absence of clean water supplies and poor quality housing. Inasmuch as the HOPE project has contributed to greatly improved sanitation on the compounds, it can be concluded that the project is meeting some of the priority needs of the beneficiaries. Otherwise, further qualitative research needs to be conducted with estate residents themselves to determine their perspectives on the health services now available as a result of the HOPE effort.

4. RELEVANCE TO DEVELOPMENT

Within the tea and coffee estates of Thy010 district in Malawi, the main community barriers to meeting the basic needs of children have been poor utilization of health services (due mostly to a lack of outreach services by the estates' facilities), the transiency of the estate workforce which results in neglect of compound houses, and lack of knowledge about causes, prevention, and treatment of basic diseases.

HOPE's emphasis on community involvement and self-reliance in promoting health have most visibly resulted in increased cleanliness and sanitation on the compounds. In turn, the estate managers, impressed with the improved cleanliness on the compounds, investing further resources into compound services (such as pit latrines and water supplies). The project's strategy has also emphasized earlier treatment of health problems both with home remedies (e.g. home-based ORS) and in early referrals to the clinic.

5. DESIGN AND IMPLEMENTATION

5.1 Design

The project is largely being implemented as planned. Following the plans set forth in the project proposal and DIP, the project activities and beneficiaries are limited to tea/coffee estate workers and their families in Thyolo District. With project funds, a total of 38 estates with a target population of 45,588 (women of childbearing age and children under five) were originally targeted and are now being served. The success of Project HOPE's activities on the Thyolo estates has reached the attention of other entities (sugar, tea/coffee, tobacco estates) in neighboring districts, and although numerous requests have been made to expand activities to these districts, implementation thus far has been confined to the Thy010 district estates.

5.2 Management and Use of Data

The development of a user-friendly, management-based, computerized health information system (HIS) for the HSAs and volunteers is a major project achievement and unique contribution to the Malawian health sector. The project HIS, developed by an external consultant, consists of three data components: the *HSA Monthly Consolidated Form; the Monthly Volunteer Activity Sheet;* and *monthly* service *statistics for estate clinics. The* data *are* used to monitor both the performance of the HSAs (thereby contributing to better employee supervision) and disease trends in the community (for fine-tuning project resources toward the most critical problems). This is in contrast to the HIS used by the MOH which focuses more on the HSAs' health inspection tasks (of bars, markets, food outlets), and less on their primary health care or health promotion responsibilities. The project HIS, unlike the MOH information system for HSAs, is designed for monitoring health problems at the community level and linking the prevalence of the health problems with the work of HSAs. The project HIS also contains service statistics from estate health facilities to ensure that the most critical health problems appearing at the clinics are being addressed by the HSAs and volunteer, and to identify trends in morbidity for measuring possible program impact. The project HISS, in comparison with the Minis&y's HIS, is very robust and should be considered for wider use in Malawi by the MOH or other groups working with HSAs.

The HSA Monthly Consolidated Form (see Annex E) contains information on:

- the numbers of persons reached with IEC talks;
- the number of children attending under-five clinics run by the HSA;
- the number of persons referred to the clinic (compared to the number of persons actually appearing at the clinic -- for measuring dropout rates);
- the number of houses found infested with pests;
- the number of households involved in sanitation activities that month (such as digging of rubbish pits or pit latrines, clearing, etc); and
- the number of households/compounds with satisfactory water supply and sanitation facilities.

While the HSA form is very comprehensive, it is almost too detailed to ensure accurate reporting by the HSAs. This was confirmed by project HIS staff who noted confusion among HSAs regarding precisely what information should be recorded (e.g. the number of talks given vs. number of persons attending each talk; or the number of houses smeared vs. the number of persons involved in house smearing). Such confusion renders the project HIS data less useful because of inconsistencies in reporting. ln addition, because some of the information on the form is repetitive from month to month (e.g. inspections and water supply data) these should be deleted from the form and reported on a semi-annual basis instead. With these changes to streamline and clarity the data collected, the form should prove to be even more valuable for on-going program management.

The Monthly Volunteer Activity Sheet (see Annex F) is pictorial for use by illiterate volunteers. In theory, the volunteers complete the forms and submit them to the HSAs for their review and aggregation. In practice, however, the volunteer forms are sent directly to the HOPE Project Office for computer entry. This means that HSAs are not greatly involved in using the volunteers' data to monitor the performance of their volunteers, and that the forms are not being usedtothe maximum extent possible at the field level.

Because the project HIS is computerized (using EPI-INFO), data entry, retrieval, and feedback is easier and more timely than the MOH's manual HIS. Data are compiled and analyzed by a Peace Corps Volunteer Computer Systems Specialist and a data entry ***clerk*** presently employed by the project. Summaries are reportedly given to each HSA each month. Although a Malawian will soon be hired to replace the PCV, rapid turn-around and follow-up will not be sustained after the end of the project without greater involvement of field staff (HSAs and estate medical personnel) in the use of the HIS. Consequently, more effort should be invested toward HIS capacity building among HSAs and estate medical staff for analyzing/utilizing the data at field level to manage their programs. The building of these capacities is critical for institutionalizing and sustaining project monitoring and supervision following the PACD.

The evaluation team supports the project's plans to share its HIS program with the district MOH for use in managing Ministry HSAs and managing service statistics. However, the project HIS as presently designed is highly project-specific, and will be of limited use to the MOH. Therefore, **it is recommended that short-term technical assistance by an HIS Specialist be arranged to streamline the forms (per the above discussion) and to more generically adapt the HIS for use by both the project and the district MOH. Establishing the capacity within the** MOH to utilize the system may also require the purchase of a computer, as well as providing the on-the-job training fur MOH HIS staff in the use of the system. Project HOPE should ensure that adequate financing is available for this (either through project or external resources).

5.3 Community Education and Social Promotion

The HOPE/Malawi Child Survival Project is principally an information/education/ communications (IEC) and health promotion initiative. Minimal emphasis given to strengthening direct provision of clinical services because the estate clinics provide basic

curative and some preventive services. The project-supported IEC activities were designed to complement the estate health structure through establishing an outreach and social mobilization component previously absent at clinic level.

HOPE has trained thirty HSAs and 300 community health volunteers to offer face-to-face health education on MCH, and to encourage or refer estate workers to estate clinics for health care. The volunteers are expected to give two health talks per week to their compounds on various topics ranging from general sanitation/hygiene to nutrition, AIDS, family planning, and child health problems. In training the volunteers, special effort was taken to provide them with skills in adult education techniques. This was undertaken to maximize their effectiveness in message dissemination. (A local consulting firm was hired to conduct a ToT on adult education methods for the trainers of volunteers). The HSAs, although primarily responsible for supervising the volunteers and ensuring the effectiveness of IEC at the community level, received minimal training in IEC and adult education (one day in the six week course). For this reason, it is suggested that in the next year, the HSAs should be given special refresher training in adult education methods to upgrade their skills in this area.

The materials used in the training the HSAs and volunteers were those developed by the GOM/MOH, except for one breastfeeding poster which was developed with HOPE support. Baseline survey data were not used to formulate IEC messages, but rather to generally target IEC efforts to the population. The messages taught to the HSAs and volunteers (and now used in health talks) are those developed by the MOH and by UNICEF as presented in the document "Facts for Life". The project was not involved in any pre-testing of printed materials. The HSAs and volunteers presently do not use any teaching aids for their health talks (such as flip charts, brochures, etc).

Preliminary results of the mid-term survey show that significant gains have been made in increasing mothers' knowledge levels, although there are areas where less progress has been made. This is particularly true of the "feeding-during-diarrhea" messages where some confusion among the mothers is evident. The mid-term survey results should be thoroughly analyzed as quickly as possible to identify any other areas where additional confusion may exist, and these results should be used to design special IEC interventions to clarify problem areas.

Anecdotal information indicates that the IEC efforts of the HSAs and volunteers have been quite well received by the community. Attendance is reportedly increasing at all health talks, and communities are reportedly requesting additional information regarding health and child survival. However, given the preliminary results of the mid-term survey, we conclude that both community volunteers and HSAs are responsible for delivering too many messages on too many topics given the short-term pre-service training provided to them. To assist in strengthening their IEC capacity as well as ensuring that all workers provide consistent and accurate messages, it is recommended that (a) refresher training be given to all HSAs on all the child survival interventions and messages; and (b) teaching aids be given to all HSAs and volunteers to assist them in their health talks, such as flip charts, or brochures to hand out to participants in health talks. One suggestion is that pictorial "cue sheets" be designed for volunteers, and that these cue sheets may be the basis for a supervisory tool or checklist for HSAs in their supervision of volunteers.

One target group which should be focused upon for special IEC interventions are male estate workers and sex workers. The project's present approach to AIDS IEC has been to educate women on AIDS transmission and prevention. Yet it is men and sex workers who are at greatest risk and who most require IEC for effective control of the spread of AIDS to women and infants, the primary target group of this project. Therefore, the project should focus special attention during the coming year on IEC for men and sex workers.

Service provision under the project is limited to condom distribution by HSAs to estate residents and the pilot family planning community-based distribution (CBD) program (which has operated on one estate only since early 1993). Because these are the only direct services which have been supported by HOPE, the project faces a serious constraint in achieving its goal to improve maternal and child health on the estates. This is primarily due to the absence of adequate "safe motherhood" services on the estates, and the project's emphasis on child survival with limited resources directed at maternal care. Because essential maternal care services (prenatal, childbirth, postnatal, and family planning) are generally unavailable on the estates, mothers are required travel outside the estates for their services. Yet 15 percent of the project's resources are allocated for promoting family planning/maternal care services which largely are non-existent on the estates. As a result, the project's IEC efforts to improving maternal health will likely be limited in the face of continued weak and inaccessible maternal care. Indeed the Ministry of Health indicated that the greatest weakness of the project was the lack of attention given to strengthening safe motherhood services on the estates.

In the event of a project extension or expansion (see section 8 below, "Recommendations"), the activities to strengthen delivery of maternal care services on the estates should be an integral part of the project.

5.4 Human Resources for Child Survival

The HOPE Project contains three types of personnel: (1) Project HOPE employees who train and supervise the HSAs, maintain the HIS, and coordinate all project activities; (2) health surveillance assistants (HSAs) and community health volunteers, trained by HOPE, employed by the estates, and responsible for delivering preventive health services on the estates; and (3) community based distributors of family planning services (who presently work on only one estate). These are more fully discussed below.

5.4.1 Project Hope staffing

Annex C contains an organigram for Project HOPE staff involved in implementing this project. Since the start-up grant (when three individuals were employed), an additional seven persons have been recruited. Of ten full-time staff, three are expatriate (two Peace Corps Volunteers and one expatriate project coordinator). Of seven Malawian staff, three are administrative/ clerical and four are program managers/supervisors. Project HOPE staff have largely been responsible for program start-up, liaising with estate management and estate health staff, training 30 HSAs and 300 volunteers, establishing the HIS, and monitoring/supervising the

performance of 30 HSAs and 300 volunteers. Given the present level of effort, the existing staff complement is sufficient to meet all administrative and programmatic responsibilities of the project. However, in the event that the project is extended or expanded before HSA supervisory responsibilities are handed over to the estates, additional program personnel may be required to manage and supervise any additional HSAs and volunteers added to the program.

There is need to relieve the project coordinator of the day-today financial management tasks (mostly book-keeping) which she is currently performing. It is recommended that another staff person be trained to assume these responsibilities so that the coordinator is freed to concentrate on strategic planning and program management.

Counterparts for the HOPE staff consist of a mixture of estate managers, estate health staff, and district and regional MOH staff. HOPE staff undertake all coordination and monitoring/ supervisory functions which should eventually be handed over to these counterparts, although there has been little preparation for such a hand-over. In the coming year, HOPE should pursue a more active relationship with the counterparts to prepare them for (i) direct supervision and monitoring of the HSAs and volunteers, including collecting and analyzing HIS data on HSAs; and (ii) overall coordination and strategic planning for all PHC services on the estate sector.

5.4.2 Health Surveillance Assistant (HSAs) and Community Health Volunteers

HSAs: HSAs are the lowest level health staff in the Malawian health care system, working either in the government or with the private sector (both for profit and not-for-profit) to provide the critical functions of health promotion and delivery of preventive health services. In this project, the estate HSAs and community volunteers are the front-line personnel for primary health care, focusing mainly on IEC for primary health care (EPI, CDD, ARI, malaria, nutrition, HIV/AIDS, and family planning). Each estate HSA supervises an estimated ten volunteers, who in turn serve an estimated 80 - 200 workers and their families (depending on the estate and the seasonality of labor).

The thirty HSAs (15 men and 15 women) trained by HOPE are all employed by their tea/coffee estate companies, reporting to estate health staff or directly to estate management. Formerly, these HSAs were clinic dressers, teachers, women's group leaders, clinic assistants, or clerical/administrative staff. Tky were recruited by estate managers to assume their responsibilities mainly from existing pools of estate employees. HSA salaries on the estates are reportedly higher than HSA salaries in the public sector.

Reject HOPE trained the HSAs using the MOH's six-week HSA curriculum (but modified slightly by the addition of four days training on AIDS which does not exist in the MOH curriculum). The MOH pre-service curriculum consists of four weeks of classroom work and two weeks of field work. No refresher training has yet been provided, but need for such training have been identified. Because there is no MOH curriculum for refresher or m-service training, Project HOPE will be responsible for the additional work of developing the refresher training plan and curriculum.

It has been suggested by some health experts in Malawi that HSAs and volunteers in Malawi are generally ill-equipped to undertake the heavy workload assigned to them given (a) their limited pre-service training (six weeks for HSAs and 6 days for volunteers), and (b) their low prerequisite schooling (Standard 8 for HSAs and none for volunteers). It is also said that HSAs in Malawi are often not performing the tasks for which they have been trained, working more in static health facilities than undertaking outreach or community-level health promotion. Furthermore, the absence in the public sector of a career ladder for advancement is said to provide HSAs with little motivation or incentive for outstanding performance in community-level work.

From the experience of this project, it would appear that pre-service training (as standardized by the MOH) for HSAs and volunteers is indeed weak, given their broad responsibilities, However, strong supervision and follow-up by Project HOPE staff (especially in the form of on-the-job training) has significantly helped to overcome weak pre-service training, rendering the HSAs productive and functional members of the estate health sector (although some of the differences in HSA performance, however, have been attributed to different educational levels among HSAs). It is noted that HSA performance and output on the estates is highly correlated with the level of encouragement and interest provided by estate management. This would suggest that structural weaknesses in HSA pre-service training can be overcome given a strong supervisory structure and positive motivational environment such as exists in this project.

On the issue of career advance-t, there is evidence that a few outstanding HSAs on the estates have been promoted to supervisory positions or to junior posts within the estate health clinics, although this was observed only on one estate. Several of the HSAs interviewed themselves expressed a desire to be trained as Health Assistants (the designated supervisors of HSAs within the MOH structure) so as to enhance their career advancement.

Volunteers: The 300 community health volunteers (predominantly female), selected by their communities compounds have received five of six total days of training (volunteer pre-service training is on average one day per month for six months). Estate managers state that the volunteers deserve most credit for the project's successes, especially in view of their lack of remuneration from the communities or from the estates. It is unknown how many volunteers have dropped out as a result of lack of interest/motivation or seasonality in employment (some of the volunteers trained were seasonal and not permanent employees).

The volunteers themselves have quested certificates upon completion of their training. This is a very reasonable request, especially for those who are more mobile and believe their training could be utilized elsewhere in the country. It is recommended that Project HOPE distribute these certificates at a special ceremony to recognize the volunteers' contribution to improved health care.

As mentioned previously, the volunteers have no teaching aids or materials to distribute which may make their work more effective. Nor has any refresher training yet been provided to volunteers. Because teaching aids could greatly assist in making messages more uniform and accurate, volunteers should be given "cue sheets' or a similar tool for their health education Work.

Each volunteer serves an estimated 80 - 100 workers and their families (assuming 5 dependents per worker, this gives a total client load of 400 - 500 persons per vohmteer).
During the evaluation, some volunteers expressed frustration over their difficulties in influencing some households. for some, the solution to this problem has been to recruit compound watchmen ("compound leaders") to provide them with back-up support. However, because the watchmen have not directly benefitted from any health training, the project should capitalize on their informal involvement and provide them with training, particularly in areas where they could be of more influence on men (such as in family planning, AIDS prevention, etc). As permanent employees of the estates, formally involving watchmen in the estate PHC system can provide a measure of continuity to the compound where turnover among volunteers occurs.

The volunteers' problems with their constituents highlight the likelihood that HSA supervision is not as effective as it should be. The project should examine more closely the quality of HSA supervision and the need for upgrading their skills and/or developing specialized supervisory took. External technical assistance for this task is recommended.

After 12- 18 months of project implementation, it is clear that both the volunteers and HSAs believe they need refresher training. When asked what subjects they would like to review, the general response was "everything". The results of the mid-term survey confirm the need for refresher training, and as such a general review of all interventions is recommended (with special concentration on nutrition and ARI interventions). In addition, a review of adult teaching methods should be included, as well as supervisory training for HSAs. Finally, as discussed above, refresher training should include a review of the HIS, the accurate completion of the forms, and the utilization of HIS data fix monitoring program progress and employee performance at the compound and estate level. The evaluation team notes that the project budget contains financing for refresher training and that this is planned in the coming year.

5.4.3 Community-Based Distributors (for Family Planning)

HSAs and volunteers largely promote family planning services which are generally not available on the estates. The absence of FP services in the estate sector is due to restrictive GOM regulations which prohibit health providers from offering FP services without having completed a special MOH three-month training course. Given that only one nurse on all 38 estates has completed this course and is qualified to provide family planning on-site, most estate residents have had to travel off the estate to obtain FP services.

With this constraint in mind, HOPE recently initiated a CBD program (for condoms, foam, and oral contraceptives) on the one estate where the qualified FP nurse is located and where a child spacing clinic had been earlier established (in August 1992). The eight CBD workers (all literate women) were selected by their communities to provide outreach services from the child spacing clinic. They underwent a two-week training which covered contraceptive methods (including those methods to be distributed as well as those only available at the clinics, such as the injectable, IUD, and sterilization), counseling, logistics, and reporting.

At the time of the evaluation, the CBD program had been operational for only three months, but distribution data show that commodity distribution is low - only 15 cycles of pills and 150 condoms had been distributed by the eight CBD workers during this period. The low activity level of the program mirrors the poor performance of the child spacing clinic which also shows very low output levels since August 1992. One explanation for the program's poor performance is inadequate supervision of the CBD workers by the cognizant family planning nurse. Another possible explanation is that potential FP clients prefer anonymity which is not provided by the FP clinic or CBD workers from their community. The reasons for the poor performance must be examined in further detail, perhaps through conducting focus groups with both clients and CBD workers, to identify existing constraints and possible solutions. The adequacy of pre-service training for CBD workers should also be examined during the focus groups.

Given that it has not been possible to expand the CBD program to other estates due to GOM/MOH training prerequisites, Project HOPE is exploring the possibility of linking trained FP practitioners from a neighboring hospital to provide monthly visits to the estate clinics. 'This a laudable interim solution, but sustainable family planning service delivery will occur only when estate medical staff themselves are trained to delivery services, and contraceptive supplies are made more accessible, either through CBD workers or through other means'. Assuming that the GOM will soon revise the prerequisites for FP service delivery, estate medical staff should wait to receive FP training until the new GOM guidelines are disseminated.

5.5 Supplies and Materials for Local Staff

HSAs are trained as condom distributors but have no other items to provide. Nor do volunteers have any materials or supplies to use in their work. Whilethislackofmateriaisdoesnot appear to have adversely affected their performance, both HSAs and volunteers could be more effective if given additional "took" to do their jobs. For example, health education aids (such as flip charts or brochures for distribution) or other health supplies (such as ORS or other non-prescriptive medications as permitted by the GOM) could enhance their credibility at community and estate management level. As mentioned previously, volunteers in particular lack the necessary skills and tools to ensure consistency and accuracy in message dissemination. With the addition of teaching aids or other supplies, the HSAs and volunteers could stimulate even more positive health practices at the home as well as more rational utilization of estate medical services.

Essential medicines and other health supplies are financed by the estates, with the exception of preventive health services supplies (vaccines, ORS, contraceptives, condoms) which are supplied free-of-charge from the district MOH. However, frequent stockouts of these items at the district MOH level adversely affects the delivery of many MCH services. Project HOPE has

[3] GOM family planning policies reqardinq conercial sales of contraceptives, norm and procedures for FP services &livery are being reviewed by other USAID-sponsored projects at this time. Until these policies are officially revised, Project HOPE must limit its FP activities to those which are approved by the GUI. However, once the policies are liberalized, HOPE is encouraged to promote expansion of FP throughout the estate sector through any and all means.

assisted to address erratic condom supplies by collecting condoms in Lilongwe and filling the distribution pipeline on the estates (thereby bypassing the MOH regional and district storage points). While the short-term gains from this strategy are clear (CPR for condoms doubled by the mid-term survey), the estates will likely not continue such logistics support following the project PACD. Thus, the project should solicit the support of USAID/Malawi and other donors to improving logistics management of supplies in the health sector.

5.6 Quality

Again, as mentioned previously, HSAs and community volunteers have received limited technical training to undertake their wide-ranging and heavy workload. To strengthen their technical capacity, HSAs and volunteers should be given refresher training as soon as possible in all the child survival interventions, with special emphasis on those areas where weaknesses have been identified (notably nutrition and ARI). Roth HSAs and community volunteers should be provided with teaching aids to strengthen their health education tasks. In addition, given the HSAs IEC responsibilities as well as their supervisory responsibilities over the volunteers' IEC activities, all HSAs should have the benefit of a refresher course of adult education methods. Strengthening these technical skills should improve the quality of work by both HSAs and volunteers.

5 . 7 Supervision and Monitoring

Section 5.4.2 above highlighted the importance which supervision has played in overcoming weak pre-service training and in contributing to the successes of the project to date. Indeed, during the evaluation, estate managers repeatedly noted that the project's most critical input has been the supervision and technical direction provided by Project HOPE to the HSAs. Project HOPE staff have undertaken virtually all HSA supervision and monitoring within this project. HOPE staff conduct site visits, hold quarterly meetings, and review I-ISA HIS data. A supervisory checklist was recently developed (see Annex G), but it does not appear to be particularly useful for identifying where HSA performance is strong or lacking. While the HSA information system is a much stronger tool for monitoring performance, an improved supervisory checklist (such as the "scoring" methods developed under the A.I.D/Washington PRICOR Project) could be used for focusing on the most important areas of HSA performance. HOPE is encouraged to explore alternative in supervisory checklist formats for developing a new checklist which can eventually be used by estate managers in their supervision of HSAs.

HSAs are also supervised by their estates, but the quality of this varies considerably. Some estate medical staff meet regularly with their HSAs and require written reports. Other estates provide little effective super&ion, either because they are unfamiliar with public health and the HSA's roles/responsibilities or because they have no time. These estates depend heavily on Project HOPE for all supervision, monitoring, and technical direction/support.

The HSAs themselves, with indirect support from the HOPE staff, supervise and monitor the work of the volunteers, largely through site visits. Transport for supervision is not a constraint

in this project, as bicycles have been given to all HSAs for their work (although some estate managers say the bicycles are not being used). Quality of HSA supervision appears to the weak. HSAs do not appear to utilize the volunteers monthly activity sheets for supervisory purposes (as the data sheets are mostly sent directly to Project HOPE staff for data entry and analysis). In view of the demonstrated importance which good supervision has played in the success of the project, and in view of HSAs' need for capacity building in this area, there is urgent need to train HSAs in supervisory skills as well as to teach them to use the HIS for monitoring the performance of the volunteers.

From the viewpoint of the HSAs and volunteers, most of the supervision and monitoring provided by Project HOPE is on-the-job training. From the perspective of Project HOPE, supervisory visits are also important for project administration purposes. HOPE could more to use the supervisory process and the HIS data for on-going project evaluation purposes. The estates themselves supervise HSAs to evaluate their performance (as does Project HOPE). Supervisory visits are not utilized for counseling/support purposes, as the responsibilities of the HSAs and volunteers generally require little attention in this areas.

The continued success of the HSAs on the estates sector is highly dependent on institutionalizing HSA supervision and monitoring function on the estates themselves. To the maximum extent possible (i.e. where estates have medical staff), Project HOPE should build capacity of estate medicalstafftodirectly supervise the HSAs and volunteers. This capacity building effort should include the development of tools, such as a more effective supervisory checklist, which can be used by both project and estate staff. Furthermore, estate supervisors should be taught how to use the HIS for both monitoring HSA performance and identifying disease priorities.

5.8 Use of A.I.D. Central Funding

Project HOPE/Malawi receives technical and administrative guidance from HOPE Center (USA). Fifteen percent of total project financing is allocated for HOPE Center administrative monitoring and technical support. Less than half of this has been expended at the time of the evaluation, but this is attributed to a reorganization at HOPE Center which streamlined communications and administration between the field and HOPE Center (previously complicated and confusing) and limited the number of technical staff overseeing field operations. HOPE/Malawi staff state that as a result of the reorganization, administrative and technical backstopping is now easier to obtain. A recently hired Health Education Specialist at HOPE Center is expected to assist even further in supporting the project's IEC activities.

HOPE Center receives administrative and technical support from the A.I.D./Washington PVO Child Survival Project, although the quality of this support is variable. A.I.D. guidelines provided for implementation plans, surveys, and evaluations have not always been distributed in a timely manner, and as in the case of the DIP guidelines, are often too confusing and complicated to render the final document useful for project planning, implementation, or evaluation. Ideally, the DIP itself should be used on a daily basis for project implementation and on-going evaluation/ monitoring. Unfortunately, the document's confusing organization makes this nearly impossible.

Another problems is that A.I.D. (through its centrally-funded contractor) requires a rigid sampling frame (households with children under two) for all project-related KPC surveys. Understandably, this is the sampling frame best suited for measuring EPI coverage and other child survival interventions. But in a project such as this, where considerable emphasis is given to the promotion of adult health services (family planning, AIDS control, maternal health) that directly affect child survival, this is an inappropriate sampling frame for evaluating all the project's variables. With such a sampling frame, it is not possible to calculate true contraceptive prevalence rates nor can KPC data on AIDS transmission (the key factor in morbidity and mortality in Malawi today) be accurately measured. Given that child survival in Malawi is inextricably tied to safe motherhood, and given that 30 percent of this project's resources are allocated for family planning, maternal care and AIDS, the narrow sample frame is incompatible with the project's range of activities and objectives. Moreover, many. of the project's survey results cannot be compared to other national health survey data (such as the Malawi DHS) which are now available. It is recommended that for child survival projects like this which contain a large portion of family planning and adult health activities, A.I.D./Washington revise its survey guidelines to those used by the DHS, with a cluster sub-sample for measuring EPI coverage rates and other child survival interventions.

5.9 Project HOPE's use of Technical Support

To date, approximately eight person-weeks of external technical assistance were obtained for: (i) development of the project's information system for HSAs (2 person-weeks); (ii) examining dietary intake patterns and use of home-based fluids for diarrhea treatment (2 person-weeks); (iii) conducting a workshop on adult education methods for trainers of community health volunteers (1 person week); and (iv) conducting an ethnographic survey of household health practices on the estates (3 person-weeks). Aside from the HIS consultancy, they were largely conducted by local consultants in based in Malawi and were useful for providing greater understanding of home-based practices and for formulating the project's IEC strategy. However, the results of these consultancies were not used for formulating message content since the project relied on the messages already developed by the MOH and UNICEF/Malawi.

Although the project HIS is highly specialize to meet the monitoring and reporting needs of Project HOPE, there is considerable potential for adapting the HIS for use by the MOH in Thy010 or more broadly throughout Malawi. It is therefore recommended that HOPE arrange for second HIS consultancy for the purpose of adapting and refining the project HIS to meet the more generic HSA information needs of the estates, the district MOH, and/or other interested parties.

As previously discussed in sections 5.4.2 and 5.7, additional TA for strengthening supervision skills and for developing stronger supervisory tools (at all levels) is also recommended.

5.10 Assessment of Counterpart Relationships

The chief counterparts for this project are the estate managers and their medical staff, the

Thyolo district MOH, and the regional MOH (based in Blantyre for the southern region). The estates are principally involved in the day-today implementation of the child survival project in conjunction with Project HOPE technical direction and coordination. The district/regional MOH is responsible for general coordination and oversight of all health services in the area, including private sector and non-profit services (such as exist in this project).

Relationships between HOPE and all counterparts are excellent. The Project Coordinator in particular can be credited with building very strong and effective relationships with all parties, but particularly with estate management (who are typically reluctant to collaborate in social sew; projects because of negative experiences in the past). Estate managers expressed their pleasure with the progress of the project and the efforts made by the Project Coordinator to keep them informed of project activities and emerging needs.

Coordination with MOH policies and procedures is a high priority as evidenced by the fact that all project interventions follow MOH norms and procedures, all messages are those developed by the GOM/MOH with UNICEF, and that all the HSA training utilized MOH curriculum. Regular meetings between the regional MOH and the project (along with other NGOs working in the region) began in earnest during the 1990/92 drought to coordinate emergency relief activities. Although the drought has passed, these meetings are continuing, but with a more developmental focus, The regional MOH has indicated that despite differing objectives between many NGO projects and the MOH, NGO/PVO projects in general (and Project HOPE's in particular) are excellent mechanisms for operations research, especially in areas such as supervision, community mobilization, sustainability, nutrition, and family planning (areas where Malawi government programs are traditionally weak). This was attributed to the NGOs/PVOs' better resources, better logistical support, and greater motivated to "test" new approaches. It was recommended that more PVO/NGO health projects in Malawi be encouraged to use their projects as operations research activities to test interventions or innovations which the MOH could possibly include in their programs. [N.B.: In this regard, Project HOPE's development of the HSA HIS and work done in supervision could be a substantial contribution to the Malawian health sector with wide-ranging applicability.]

At an operational level, coordination between the project, the estates, and the district MOH is less formal - meetings are held as needed, usually to resolve a problem in project implementation. The district Senior Health Inspector (the individual responsible for overseeing all HSA activities in the district) expressed concern that he was not kept informed of project HSA activities (although HOPE keeps his supervisor, the district Health Director, abreast of all project activities). It is recommended that the project establish a more formal mechanism for on-site coordination, either through regular meetings with estate representatives and the district MOH (including the district health inspectorate and MCH representatives), or through copying the Health Inspectorate on all communications passed to the district Health Director.

To date, Project HOPE has assumed all of the technical, supervisory, and coordinating functions of the project, These, however, must be handed over to either the estates or the MOH by the end of the project. Given that there are 38 estates, it is unrealistic to expect institutionalization of all functions within each estate. While each estate should become more involved in the direct supervision of their HSAs and volunteers, managing HIS data and

monitoring/coordinating between estates is best assigned to a broader coordinating body. Despite the natural fit between these functions and the MOH, the Ministry's limited resources precludes them from assuming these responsibilities. One suggested alternative is the Agricultural Employers Association (AEA) of Malawi who are largely responsible for rationalizing and standardizing benefits on the estate sector. Ideally, the tasks of coordination between estates, data management, and coordination with the MOH could be transferred to the AEA, and financed through membership contributions to the AEA. However, this remains to be worked through with the AEA and given the limited time remaining before the PACD, may not be completed during the remainder of the current project.

5.11 Referral Relationships

HSAs and volunteers refer sick patients to the estate health facilities which are equipped to provide basic curative and preventive services. Severe cases are referred to the Thy010 district hospital. As mentioned previously, the presence of HSAs and volunteers has increased referrals to estate clinics, with the result that patients are referred earlier, before the illness progresses to a critical state. This is regarded by many as a major accomplishment of the project. Aside from establishing a family planning clinic on one estate, the project is not directly involved in strengthening the services provided at the referral site (although it is believed that HOPE should strengthen maternal care services at the estate level - an oft mentioned gap in the project's activities as discussed in section 5.3 above).

5.12 HOPE Networking with Other NGOs/PVOs

During the evaluation, it was often cited that NGO-NGO coordination in Malawi was largely non-existent prior to the 1991/1992 drought. NGOs were rarely involved in sharing resources, and there was evidence of duplication in design efforts. Early attempts at coordinating with the efforts of other A.I.D.-financed PVOs in Malawi were by and large unproductive.

The onset of the drought, however, effectively brought the NGO community together for the first time for the purpose of coordinating emergency response. HOPE participated in donor coordination meetings with the MOH and other NGOs as well as supporting numerous nutrition surveys which were conducted throughout southern Malawi. Although the drought has passed, these donor coordination activities continue today with a focus on development and coordination of scarce development resources to maximize impact at the community level.

HOPE states that from these coordination efforts, it has learned much from other NGOs about the roles and limits of volunteers and their realistic contribution to the project and primary health care.

5.13 Budget Management

To date, the project has expended only half its budget (vs. a planned 67 percent). This is

largely attributed to highly conservative spending on the part of the field team and HOPE Center, and not an overestimated budget during the planning phase. HOPE plans to use the saving accumulated thus far to finance a one-year extension of the Project Coordinator (until the end-of-the-project). The evaluation team and USAID/Malawi Health Officer supports this proposal.

The remaining budget appears to be sufficient to meet the project's KPC objectives in the final year of implementation. It is less likely, however, that in the coming year, the project will be able to achieve sustainability of project activities, as these require more than the three-years allocated for implementation. As such, a three-year extension is recommended to both expand project activities (to other estates) and to institutionalize coordination and monitoring functions within the AEA or another designated body (see section 6 below). Such an extension will require additional financial resources.

6. SUSTAINABILITY

This project has far greater chances for long-term sustainability than most NGO/PVO health projects given the estates' financial commitments to cover HSA salaries and limited associated costs. Since the beginning of the project, and as a precondition for estate participation in the project, HSAs have been salaried employees of the estates. Some estates have gone so far as to promote HSAs to higher levels, an indication of strong commitment to the project and sustainability prospects.

Financial sustainability, while not a major issue for support of service delivery, will be a factor in the sustainability of program management functions. Most estate managers have found the project so effective in addressing their priority health concerns for their workforce (malaria and HIV/AIDS control) that they are prepared to increase their health budgets to cover future recurrent costs which are now financed through HOPE (such as oversight of health workers, management of data, program coordination among estates, conducting occasional surveys, and possibly logistics support). However, their ability to assume these costs is highly dependent on the financial health of the tea and coffee industry which currently is one of the most depressed industries worldwide. As discussed below in section 7, the ability of the estates to finance all aspects of the project, following the withdrawal of Project HOPE, may not be sufficient to meet real costs.

The estates appear to be committed to sustaining the salary costs of health personnel introduced by this project, but unable to invest in any future "capital" improvements (such as equipment, supplies, training) or a significant expansion in numbers of personnel. Therefore, HOPE should make every effort to ensure that the technical quality of the HSAs' and volunteers' work is at the highest possible standard before the PACD. This means that in-service training for HSAs (to upgrade technical, supervisory, and HIS skills) and volunteers, as well as the development of IEC and supervisory tools, must be given priority over the next year to ensure that they are in place before the PACD.

The issue of HSA supervision and coordination concerns estate managers, who see HOPE's investment in this area as the critical factor contributing to the project's success. Without continued back-up from HOPE, many managers believe that HSAs will lose their productivity within 2-3 years. This further suggests that an outside organization (such as the AEA) is needed to carry on HOPE's supervisory and coordination functions, even when estate medical staff are given training and support for supervising and monitoring HSAs and volunteers.

Sustainability of the volunteers may not be realized because estate management are not fully comfortable with the concept of volunteers (they see them as "unpaid employees"). As a result, their future as permanent members of the estate health sector is less certain.

Ministry of Health involvement is not a critical factor in the sustainability of the project, although greater coordination with the MOH will only enhance the prospects for sustainability.

At this point, the most critical factor in ensuring the project's sustainability is time. The three-year period given for project implementation is insufficient for fully institutionalizing HOPE's support to the HSAs and oversight/coordination on the estates. Given only one year remaining in the project and the need to further strengthen both technical skills and organizational structures an extension of three years is recommended. This extension should be used to (1) phase-over and institutionalize the supervision/monitoring/coordination responsibilities from HOPE to an appropriate body (such as the AEA), and (2) to expand project activities to neighboring estates who have expressed interest in replicating the existing approach on their estates Such an extension should also involve an additional project activity - namely the strengthening of maternal care services and discussed above. In the absence of such an extension, long-term sustainability will be limited given the constraints presented above.

7. RECURRENT COSTS AND COST RECOVERY MECHANISMS

Excluding HSA salaries and associated medical costs which the estates are already financing, the estimated recurrent costs for program coordination/monitoring/supervision are calculated to be approximately K155,000 per year (or US $38,750 per year at present exchange rates of K4.0 = US $1.00). This would be the additional cost to the AEA or other designated organization for maintaining program coordination and oversight following the PACD. These costs are based on the following assumptions: two full-time positions (Program Coordinator and HIS/Statistics Officer) at K30,000 each (K60,000 total); training at K20,000 per year; training and office materials at K20,000 per year; transport at K40,000 per year; K15,000 per year for communications and contingency. Office space, furnishings, and secretarial/clerical support are assumed to be covered by the designated organization.

Considering that the estates presently spend an estimated $1.00 - $3.00 per worker (K4.00 - KS.00 per worker per year) for medicines, salaries, transport, and other operating expenses, this translates into $36,000 - $108,000 total district spending each year for estate health care services in Thyolo District (assuming 36,000 workers). Thus, recurrent costs associated with this program's coordination/monitoring/supervision ($38,750 per year) represent at a minimum

a 30 percent increase in health spending, and at a maximum a 100 percent increase in estate health spending,

While estate management state that they would be willing to increase their spending in health, it is unlikely that they envision a 30 to 100 percent increase over their present spending levels. In view of the tea/coffee industry's poor financial state, it is unlikely that the estates would agree to cover total recurrent costs associated with sustaining program oversight.

A solution to this dilemma is to finance the expansion of the HOPE program to more estates so that oversight costs would be spread more thinly among the companies -- a further argument for extending the project over the next three years so as to both expand coverage and lower per capita costs for sustainability.

8. RECOMMENDATIONS

The following recommendations are not presented in any priority listing. Rather, Project HOPE in conjunction with relevant counterparts, should review the list and determine the relative priority ranking of each recommendation for implementation in the coming year.

General:

The project should be extended for an additional 3 years (September 1994 - August 1997) to permit: (i) a two-year phase-over (in 1994 - 1995) of all coordination and supervisory functions to the Thy010 estates or a designated body (such as the Agriculture Employers Association); and (ii) an expansion of project activities to estates of the districts. The extension should also allow for greater financing for maternal care services, particularly &livery care and pre- post-natal care, and including family planning.

Project KPC objectives should be revised to set new targets (where targets are already met) and to quantify those targets which are presently not quantified.

The Project Coordinator should be relieved of the day-to-day financial management tasks (mostly book-keeping) which she is currently performing. Another staff person be trained to assume these responsibilities so that the coordinator is freed to concentrate on strategic planning and program management.

The project urgently needs to begin arranging for an appropriate group (such as the AEA) to sustain (i) direct supervision and monitoring of the HSAs and volunteers, including collecting and analyzing HIS data on HSAs; and (ii) overall coordination and strategic planning for all PHC services on the estate sector.

IEC/Health Promotion/Social Mobilization:

The project should investigate the apparent confusion over "feeding-during-diarrhea" messages (as is evident from the results of the mid-term survey) and formulate IEC strategies to clarify and correct this confusion.

Sex workers and men on estates should be specially targeted for IEC on HIV/AIDS prevention.

Teaching aids should be developed for all volunteers. These may include flip charts, "cue sheets", and/or brochures for distribution to households.

Watchmen who are presently involved in assisting volunteers, should be given special training in selected health interventions (especially those interventions which should be targeted particularly toward men, such as family planning and HIV/AIDS prevention).

HSAs should be given refresher training in adult education techniques, as they did not benefit from this training provided to volunteers.

IEC on nutrition (exclusive breastfeeding, weaning, feeding during diarrhea, and possibly micronutrients (vitamin A and iron)) should be given extra emphasis in the coming year.

HSAs/Volunteers:

Provide HSAs with refresher training in all technical interventions and in adult education/IEC techniques to strengthen/upgrade their technical skills.

HOPE should explore whether HSAs can be given additional supplies/materials (aside from condoms) for distribution to the communities. These could include non-prescriptive medicines (such as analgesics or skin ointments), ORS, anti-malarials, or health education materials.

Certificates should be provided to all volunteers who complete the pre-service training course.

Supervision/Health Information Systems:

Investigate whether HSA supervision is adequate to meet the special needs and problems of the volunteers. Examine the need to upgrade the supervisory skills of the HSAs, including their need for tools (such as supervisory checklists). Upgrade HSA skills as needed.

With short-term TA from a Supervision Specialist, develop HSA supervision capacity at the estate level (for that estate medical staff are able to effectively assume the day-to-day supervision of HSAs on their estates). This will entail development of an improved supervisory checklist as well as training estate supervisors how to analyze the HSA and volunteers HIS data for overall monitoring of HSA/volunteer performance.

With short-term TA from an HIS Specialist, streamline and clarify the data collected in the HIS. Adapt the HIS for more generic use by other agencies, such as the district MOH. Build capacity within the estates and among the HSAs themselves to utilize the HIS for program and personnel management.

HOPE Malawi staff should more regularly use HIS information and supervisory visits for evaluative purposes. This would enable more rapid identification of implementation problems and the formulation of early solutions.

Service Delivery:

Thoroughly examine the reasons behind the poor performance of the child spacing clinic, including the perspectives of community representatives, the CBD workers, and the CBD supervisors.

To the maximum extent possible, facilitate training of estate health staff in family planning services delivery and community-based distribution of contraceptives, to expand the availability of FP services on all estates.

Other:

Project HOPE should take the leadership in formalizing coordination between the project, the estates, and the district MOH through regular meetings and by copying all parties on all correspondence related to the project.

USAID/Malawi should be approached for assistance in resolving poor supply logistics to the district level, so that the project is relieved of the logistics management (i.e. condom transportation) activities it has assumed.

A.I.D./Washington should generally encourage PVO/NGO projects to frame their projects as "operations research" activities to test interventions or innovations which Ministry's of Health or other health agencies could include in their programs.

A.I.D./Washington should revise the DIP Guidelines to make the document a more useful tool for day-to-day project implementation and evaluation/monitoring.

A.I.D./Washington should revise its KPC Survey Guidelines to permit sampling frames as used by the DHS (with a cluster sub-sample for measuring child survival services).

9. SUMMARY

An evaluation team comprised of Project HOPE representatives and an external consultant evaluated the performance of the Project HOPE Child Survival Project which introduced child survival services to 38 private sector tea/coffee estates in Thyolo district, Malawi. The evaluation mission, conducted over a two week period in July 1993, undertook interviews with HOPE field staff, HSAs and volunteers, MOH representatives, and estate managers. No interviews were conducted with the general population as data from the HIS and baseline/mid-term surveys were available to assess changes in household health behaviors resulting from project interventions.

Primary health care, with a focus on child survival, was by and large non-existent prior to the start of the HOPE project. In the first two years of project implementation, the project successfully contributed to: (i) the creation of sound PHC services delivery through training 320 new health staff, (ii) increases in the communities' understanding and awareness of basic health problems, and (iii) a strong and effective management structure for monitoring and supervising primary health care activities on the estates, and for collaborating with counterparts and other NGOs.

In the next twelve months remaining before the PACD, the project should focus its efforts on "line-tuning" the activities introduced thus far to ensure that PHC services are of the highest possible standard. This means that in-service training for HSAs (to upgrade IEC, service delivery, supervisory, and HIS skills) and volunteers, as well as the development of IEC and supervisory tools, must be given priority over the next year to ensure that they are in place before the PACD. Some interventions, such as nutrition, AFU, and certain aspects of diarrhea control require additional attention during the next year.

Supervision of PHC health workers and program management/coordination (largely undertaken by HOPE staff) will likely not be sustained following the PACD due to the estates' lack of capacity to assume these functions. A proposed solution is that an umbrella organization like the Agricultural Employers Association be encouraged to assume these tasks for all 38 estates in Thy010 district. Unfortunately, in the twelve months remaining, it is unlikely that the AEA, or other designated body, will be able to adequately and sufficiently develop the capacity for supervision and management/coordination. Furthermore, the costs of establishing this capacity appear greater than the 38 tea/coffee estates can currently afford. It is suggested that Project HOPE expand its program to other estates in other districts so that the costs of supervision/oversight/coordination can be shared over a larger group. Such an expansion will require an extension for a minimal-three year period.

The Project HOPE Child Survival Project contains many of the necessary ingredients for a successful and sustainable primary health care program -- collaborative/productive working relationships with local institutions; enthusiasm and commitment on the part of project recipients; a technically sound set of intervention relevant to the epidemiological and cultural context; and a strong community orientation. If the above gaps and constraints are adequately addressed, the project has the potential to be a truly sustainable activity in the Malawian health sector.

ANNEX A

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ANNEX B

PERSONS CONTACTED

(Thyolo) COFFEE ESTATE REPRESENTATIVES

John Williams, Managing Director, Satemwa Estates
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M. Gondwe, Personnel Officer, I. Conforzi Estate
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Sandy McLean, General Manager, Central Africa Company
Dr. Joan McLean, Physician, Central Africa Company
Mr. Malawezi, Clinic Officer, Central Africa Company

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Chris McDermott, HPN Oflicer
Mike E. Sarhan, Program Officer

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Leigh Anne Shafer, Peace Corps Volunteer/Systems Analyst
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Zwane Sapala, Naming'omba Estate
Elena Chabwera, Smallholder Tea Authority
Innocent Ganamba, Nchima Estate
Franco Chiputula, Satemwa Estate
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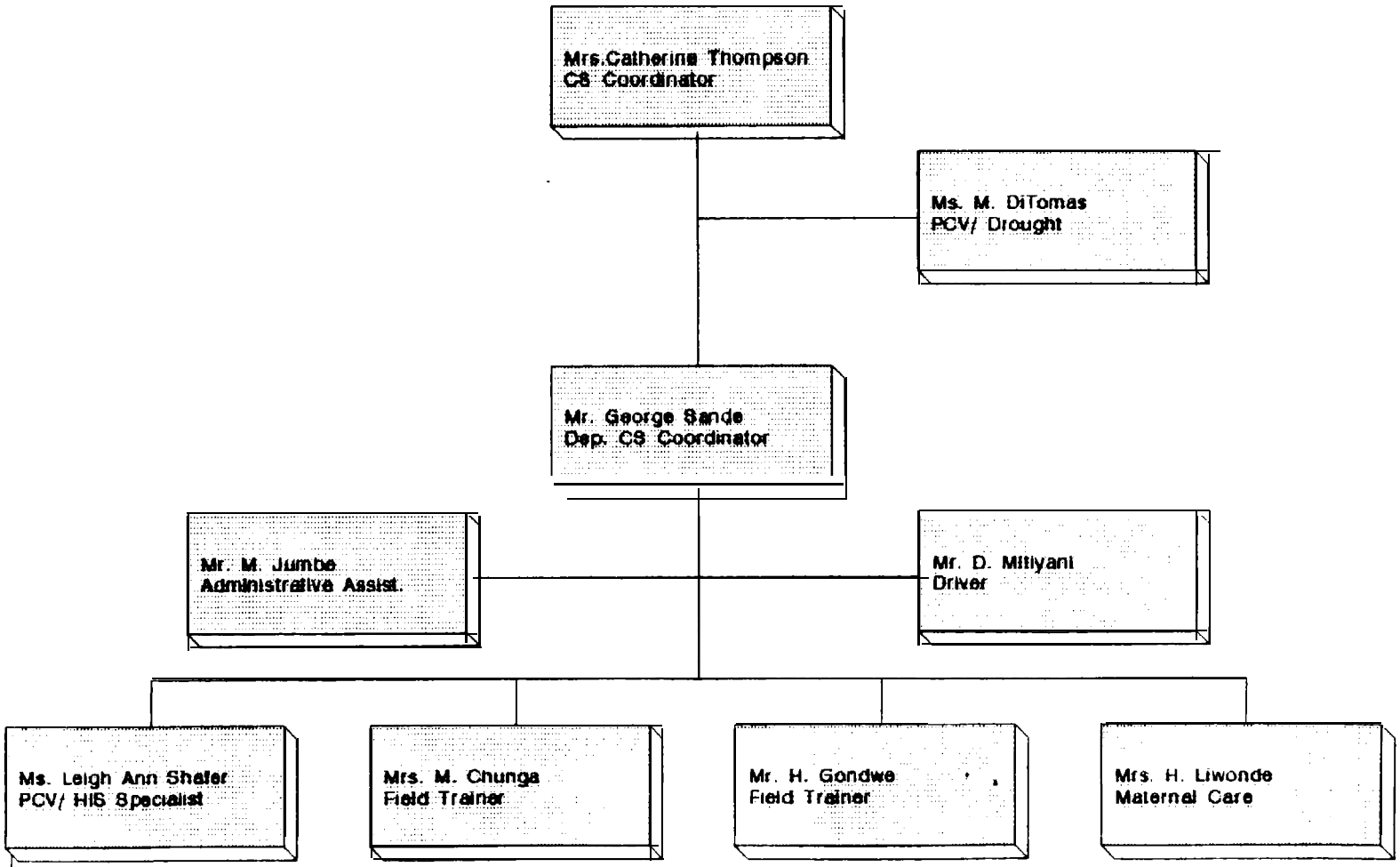
OTHERS: Francis Panulo, Head of Community Health, Malamulo Hospital
Dr. Paul Courtright, Country Director, International Eye Foundation

PROJECT HOPE MALAWI

CHILD SURVIVAL PROGRAM THYOLO

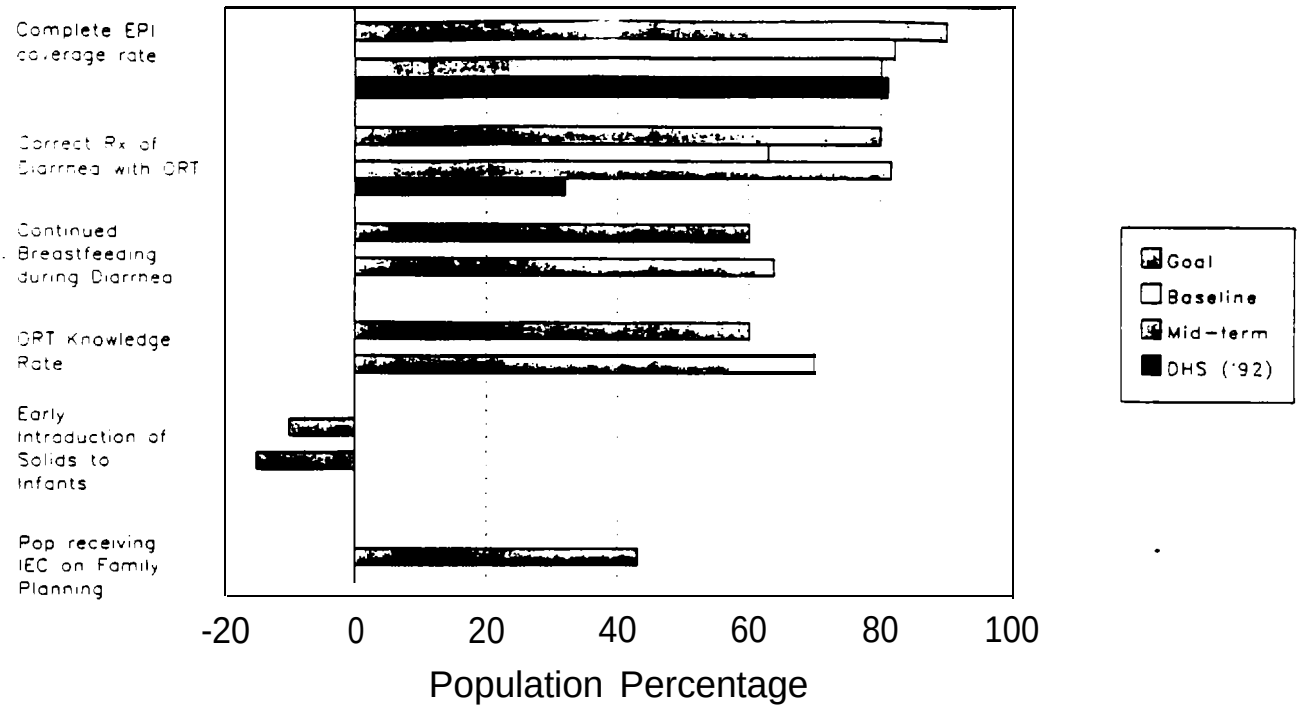


L Mrs. M.Maseko

ANNEX C

ANNEX D

Objectives



HOPE/Malawi Child Survival Project

Progress Toward Meeting Objectives 7-12

Objectives